



# RAILROAD COMMISSION OF TEXAS

## OFFICE OF GENERAL COUNSEL

**OIL AND GAS DOCKET NO. 05-0272136**

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**THE APPLICATION OF LONGBRANCH ENERGY, LP PURSUANT TO STATEWIDE  
RULE 9 FOR A COMMERCIAL PERMIT TO DISPOSE OF OIL AND GAS WATE BY  
INJECTION INTO A POROUS FORMATION NOT PRODUCTIVE OF OIL OR GAS  
FOR THE OAK TREE SWD LEASE, WELL NO. 1, CENTERVILLE (WOODBINE)  
FIELD, LEON COUNTY, TEXAS**

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**HEARD BY:** Brian K. Fancher - Technical Examiner  
Christopher Hotchkiss - Legal Examiner

**APPEARANCES:**

**REPRESENTING:**

**APPLICANT:**

George Neale  
Rick Johnston  
Rex Kirkley  
Ray Martin  
Darin Borders

Longbranch Energy, LP

**PROTESTANTS:**

David Nelson

Edward & Sheryl Carpenter

**PROCEDURAL HISTORY**

Application Filed:	April 25, 2011
Protest Received:	May 09, 2011
Request for Hearing:	August 03, 2011
Notice of Hearing:	September 13, 2011
Hearing Held:	October 03, 2011
Transcript Received:	October 14, 2011
Proposal for Decision Issued:	March 08, 2012

**EXAMINER'S REPORT AND PROPOSAL FOR DECISION****STATEMENT OF THE CASE**

Longbranch Energy, LP ("Longbranch") requests commercial disposal authority, pursuant to Statewide Rule 9, for its Oak Tree SWD Lease, Well No. 1 (API No. 42-289-31968), Centerville (Woodbine) Field located in the R. Rogers Survey, A-718, Leon County, Texas.

Notice of the subject application was published in the *Centerville News*, a newspaper of general circulation in Leon County, on April 6, 2011. Notice of the application was sent to the Leon County Clerk and to the surface owners of each tract which adjoins the disposal tract on April 25, 2011. There were no operators identified within a half-mile radius of the Oak Tree SWD Lease, Well No. 1's proposed location.

The application as presented at the hearing was protested by adjacent surface owners, whose property is located directly across Interstate Highway 45 with reference to the proposed disposal facility.

**DISCUSSION OF THE EVIDENCE****Applicant's Evidence**

The Oak Tree SWD Lease, Well No. 1, has yet to be drilled. Longbranch has obtained a drilling permit (Permit Number 725215) issued September 30, 2011 for the proposed saltwater disposal well. Longbranch indicated it seeks to drill the Oak Tree SWD Lease, Well No. 1 on a fifty (50) acre tract that abuts Interstate Highway 45, located approximately five (5) miles south of Centerville, Texas. The Oak Tree SWD, Well No. 1's proposed location is approximately 400 feet to the east of Interstate Highway 45's south-bound frontage road.

Longbranch proposes to drill the Oak Tree SWD Lease, Well No. 1 to a maximum depth of 10,500 feet. The applicant submitted a Commission Form W-14 that indicates the proposed disposal well will be completed with 3,300 feet of 9 5/8" surface casing set back to surface with cement circulated from the casing shoe to the ground surface. Beyond the surface casing, a 7" long-string casing will be set at the estimated total depth of 10,500 feet back to surface with cement circulated from the 7" casing shoe to approximately 3,300 feet (See attached Longbranch Exhibit No. 2 - Wellbore Diagram). Finally, Longbranch indicated disposal down-hole will be through 4 1/2" tubing set on a packer fifty feet above the top of the proposed disposal interval.

As proposed, Longbranch's Oak Tree SWD Lease, Well No. 1 will dispose into an interval consisting of sand members in the upper Rodessa formation between 9,500 feet and 10,300 feet. Prior to the hearing, Longbranch proposed an injection interval of

9,500 feet to 9,900 feet with requested authority to dispose of a maximum of 30,000 barrels of salt water and RCRA exempt waste per day and a maximum injection pressure of 4,600 psig. At the hearing, Longbranch submitted an amended Commission Form W-14 that indicated the applicant seeks to reduce its requested maximum daily injection volume from 30,000 barrels per day to 20,000 barrels per day. Also, the applicant's amended request included deepening the base of the proposed injection interval from 9,900 feet to 10,300 feet, while leaving the top of the proposed injection interval at 9,500 feet below ground surface. Longbranch testified the initial Form W-14 filing dated March 29, 2011, did not accurately represent the anticipated depth of the top of the Rodessa formation. Longbranch further testified the top of the Rodessa formation will occur approximately 250 feet deeper than originally expected. Longbranch submitted a two-well, structural cross-section that indicated the regional subsurface stratigraphy dips from west to east at a slope of roughly 100 feet of vertical elevation to each aerial mile at the surface. After reaching this conclusion, Longbranch used the location of the western most well included on the aforementioned cross-section and determined the Oak Tree SWD Lease, Well No. 1's injection interval would need to be deepened an additional 400 feet to safely include its sought-after injection zone.

The Texas Commission on Environmental Quality ("TCEQ") concluded that at the location of the proposed Oak Tree SWD Lease, Well No. 1, usable-quality ground water must be protected from the ground surface to a depth of 2,900 feet below ground surface. Further, the TCEQ recommended ground-water protection through the Base of the Wilcox Sands, estimated to occur at a depth of 3,100 feet. As proposed by Longbranch, the top of the injection interval occurs at 9,500 feet leaving approximately 6,400 feet of overburden separating the usable-standard drinking water from the top of the proposed injection interval. Longbranch submitted an additional TCEQ letter dated May 12, 2011 that concluded the use of the Oak Tree SWD Lease, Well No. 1 for disposal purposes and injecting oil and gas waste into the subsurface stratum will not endanger the freshwater strata in that area. The aforementioned letter dated May 12, 2011 and issued by the TCEQ is based upon a review of the data contained in Longbranch's application and of other geologic data available to that agency.

During the hearing, Longbranch submitted a topographic print-out from the Texas Water Development Board's ("TWDB") Groundwater Database that included the permitted location of the Oak Tree SWD Lease, Well No. 1 surrounded with a one-mile radius. The evidence indicates no water wells were identified within a one-mile radius of the proposed disposal well's permitted surface location. The nearest water well identified by the TWDB is located 1.28 miles east of the proposed Oak Tree SWD Lease, Well No. 1 and is reported as a spring-type water well producing from the Sparta Aquifer. According to additional water well information submitted on behalf of Longbranch, the static water level occurs from approximately seventy five feet to one-hundred thirty feet below ground surface in the area.

As presented at the hearing, Longbranch indicated there are no artificial penetrations located within the one-half mile radius of review for the proposed disposal

well. Longbranch testified the nearest wellbore penetrating the proposed disposal interval is the EnCana, Gresham Trust Lease (Lease ID No. 260659), Well No. 3 (API No. 42-289-31851) and is located approximately 1.9 miles west of the proposed disposal well's location. According to Commission record, the Gresham Trust Lease, Well No. 3 is permitted as a vertical well and is producing from the Hayden Lake (Bossier) Field (Field ID No. 39775 500) through perforations set from 16,789 feet to 19,485 feet. The Gresham Trust Lease, Well No. 3 is completed with 13 3/8" surface-casing set at 3,128 feet, 9 5/8" intermediate casing set from surface to 11,320 feet with top of cement at 5,500 feet, 7 5/8" hanging liner from 10,999 feet to 14,855 feet with 635 sacks of cement, 6 1/8" hanging liner from 5,845 feet to 16,660 feet with 135 sacks of cement, and 4 1/2" production string set from surface to 19,703 feet with cement circulated to 9,900 feet. Longbranch submitted a Commission Form W-15 for the surface casing that indicates cement was circulated from the surface casing setting depth of 3,128 feet back to ground surface.

The proposed location of the Longbranch facility is in central-southern Leon County. Longbranch submitted evidence that indicated three permitted commercial disposal wells in Leon County, four permitted commercial disposal wells in Madison County, and one permitted commercial disposal well in Houston County, exist in the area surrounding the proposed disposal facility. Of the eight total commercial disposal wells previously mentioned, three are located within a 15 mile radius surrounding the Oak Tree SWD Lease, Well No. 1's proposed location. Collectively, the eight commercial disposal wells utilize multiple formations to dispose of oil and gas waste. Three dispose into the Woodbine formation, four dispose into the Buda/Wilcox Group formations, and one disposes into the Nacotoch formation. None of the eight existing commercial disposal facilities are permitted to dispose into the Rodessa formation.

At the hearing, the applicant identified the KTR Management Co., LLC's ("KTR") W.H. Candler Jr. SWD, Well No. 1 (API No. 42-289-31040), Rock Bottom Oil GP, LLC's ("Rock Bottom") H. Ray Collins SWD, Well No. 1 (API No. 42-289-31687), and GSI Oil & Gas, Inc.'s ("GSI") Hensarling, Well No. 3 (API No. 42-313-30511) as the three commercial disposal facilities located within the 15 mile radius of the proposed Oak Tree SWD, Well No. 1's location. Moreover, Longbranch testified the three commercial wells were currently permitted without capability for proper disposal, inactive for multiple years, or only accepting oil and gas waste from waste haulers approved to dispose by its respective facility.

As described earlier, the nearest producing wellbore is located approximately two miles from the permitted location of the Longbranch, Oak Tree SWD, Well No. 1 and is completed in the Commission recognized Hayden Lake (Bossier) Field (Field ID No. 39775 500). Longbranch testified that when hydrofrac stimulation is induced upon wellbores completed in the Bossier formation, the wellbores reciprocate large volumes of either produced water or frac flow back water. Due to the recent permitting and completion of oil and gas wells located approximately two miles west of the proposed disposal well's location, Longbranch anticipates a greater demand for disposal capacity in the area will exist in the near future.

At the hearing, Mr. Ray Martin, an employee at R & S Trucking ("R & S"), testified on behalf of Longbranch in support of the subject application. Mr. Martin indicated R & S is a vacuum truck company that specializes in the hauling of salt water and drilling mud in Panola and Shelby Counties, Texas, located approximately 150 miles to the northeast of the proposed disposal well. In summation, Mr. Martin testified that R & S currently operates twenty five vacuum trucks, is familiar with the level of activity in and around Leon County, Texas, and supports the application as presented by Longbranch at the hearing. Mr. Martin related that R & S hauls produced water associated with production from both established producing wells and wells having had frac stimulation incorporated in their completion techniques. Mr. Martin further stated that active oil and gas operators such as XTO, Encana, Chesapeake, and BRG Lonestar have requested that R & S open its own disposal facility in and around Leon County, Texas, as well as provide its waste hauling services. No documents were proffered on behalf of Mr. Martin to support his testimony.

Prior to the hearing on October 03, 2011, the application was protested by Mr. Ross T. Bush on May 06, 2011. Mr. Bush's tract abuts to the north of the fifty (50) acre tract acquired by Longbranch for disposal operations. At the hearing, representatives of Longbranch testified that Mr. Bush sold his property to Ms. Jody Bray (see transcript of October 03, 2011 Hearing, Page 21, L 5-9). Prior to the hearing, a Notice of Hearing was mailed to Ms. Bray on September 21, 2011. No protest was received by the Commission on behalf of Ms. Bray; therefore, Edward and Sheryl Carpenter were identified as the sole protestants to the subject application.

### **The Facility**

At the hearing, Longbranch submitted evidence in support of its application that depicts the proposed disposal well will be located within a facility that encompasses an area of five acres. Representatives of Longbranch testified a lease agreement has been executed between Mr. Darin Borders, President of Longbranch Energy, L.P. and Longbranch which allows Longbranch to appropriate a total of fifty acres for the proposed disposal facility. Longbranch stated that subsequent to the proposed disposal well and its associated operations becoming active, the applicant intends to expand the proposed disposal facility from the initial five acres and incorporate additional acreage available from the fifty acre tract. At the hearing, Longbranch provided a schematic of the proposed facility that illustrates a five lane pump station, six stainless steel tanks with 400 barrel capacity, two gun-barrels, 2 skim-oil tanks, two centrifugal pumps, two fresh-water tanks, and an office to house on-site personnel that are to be incorporated in the proposed disposal facility. Longbranch testified a TXDOT-approved drive-in will be located at the southwestern corner of the five acre area that abuts directly against the south-bound frontage road associated with Interstate Highway 45. According to Longbranch, once a vacuum truck has entered its proposed facility the truck will drive onto a concrete pad (dimensions of approximately 109' wide by 273' long) that is comprised of five segregated lanes, allowing for five separate vacuum trucks to unload at one time. To unload its waste, the truck will be connected to the pump station and the waste pumped from the truck into a gun-barrel tank, so that any liquid hydrocarbons

may be removed from the waste stream and properly stored. Next, the liquid waste is piped from the gun-barrel tank into one of the six stainless steel, holding tanks. After the waste has entered the stainless steel tank, the liquid waste remains immobile for a designated amount of time to allow for the proper settling of suspended solids. Once the designated settlement time has passed, the liquid waste is pumped from the stainless steel tank, piped down the tubing of the proposed disposal wellbore, and injected down-hole into the approved injection interval for the Oak Tree SWD Lease, Well No. 1.

After a vacuum truck has completed its waste load transfer, it will leave the concrete pad, turn 180 degrees, and exit the facility from the same location as it entered. Although the disposal facility's entrance and exit location are the same, Longbranch stated that it intends to incorporate an additional vehicle entrance at the northeast corner of the five acre disposal facility. The applicant also indicated its future plans to incorporate a ground water well within the proposed disposal facility. Longbranch explained the water well will be used to supply fresh water for the hydrofrac stimulation of nearby oil and gas wells and for waste haulers to wash out their truck trailers after a load of waste has been transferred to the proposed disposal facility. Longbranch testified it anticipates approximately 150 trucks per day will utilize its proposed facility. The proposed disposal facility will be sufficient in size to allow access to 25 trucks at one time.

In an effort to observe the operational pressure throughout the acceptance of liquid waste, Longbranch testified its tanks incorporated in the daily operations of the proposed disposal facility will have pressure monitoring performed twenty-four hours a day. Further, Longbranch testified a manual switch will be installed that will shut down the acceptance of liquid waste from waste hauler vehicles, if all holding tanks are at capacity at any given time.

At the hearing Longbranch testified it has previously obtained disposal permits from the Railroad Commission for disposal authority at other locations; however, it currently is not listed as the operator of any operational, permitted commercial disposal facility in Texas. Longbranch indicated it has an interest in several different disposal wells located throughout the state and submits that it has the expertise to build and manage the proposed facility. Longbranch has a current approved Form P-5 (Organization Report), a posted \$50,000 financial assurance bond and no pending Commission enforcement actions.

### **Protestants' Evidence**

Edward and Sheryl Carpenter opposed the subject application submitted by Longbranch. Counsel on behalf of the protestants indicated Mr. and Mrs. Carpenter are surface owners located across Interstate Highway 45, adjacent to the proposed disposal facility. The protestant's counsel indicated Mr. and Mrs. Carpenter are primarily concerned that operations of the proposed facility may pose a threat to their water, if a

mechanical failure occurs to the proposed disposal well. Moreover, the protestants oppose the Longbranch application due to the proximity of the proposed disposal facility. The facility will be located roughly 700 to 800 feet from the Carpenter's property. Counsel on behalf of the protestants indicated the Carpenters rely on an Artesian spring to provide fresh water to their property and the proposed disposal operation for frac flow back water remains disconcerting. No technical evidence was offered by the protestants to support their contention that the facility as proposed might harm usable quality water.

Counsel on behalf of the protestants requested Longbranch be required to run a cement bond log after the cement job on the long-string casing is performed to ensure cement is properly circulated behind the 7-inch longstring casing. Counsel for Longbranch represented that the applicant did not consider the protestants request adverse.

### **EXAMINER'S OPINION**

The examiner recommends approval of the application for commercial disposal authority for the Oak Tree SWD Lease, Well No. 1. The examiner concludes that Longbranch has established that surface and sub-surface water resources will be adequately protected from pollution, the proposed injection interval will not endanger or injure any oil, gas, or mineral formations, the proposed injection is in the public interest, and a showing of financial responsibility, as required under Commission statutes and Commission regulatory requirements, has been adequately presented by the applicant.

The proposed disposal well will be completed in a manner which will protect usable-quality water resources. The proposed disposal well's surface casing will be set at 3,300 feet below the ground surface with cement circulated from the casing shoe back to ground surface. The long-string casing will be set from the ground surface to a depth of 10,500 feet below ground surface with cement circulated from the long-string casing shoe to 3,300 feet behind pipe. In order to demonstrate the top of cement behind pipe, along with cement quality, Longbranch will run a cement bond log on the 7-inch long-string casing. In the event cement is not properly circulated, Longbranch will perform any necessary remedial work to ensure the Oak Tree SWD Lease, Well No. 1 complies with Statewide Rules 9,13, and 14.

At the hearing, Longbranch submitted petrophysical evidence that indicates 6,400 feet of overburden separates the TCEQ's recommended protection depth and the top of the Oak Tree SWD Lease, Well No. 1's proposed injection interval. The examiner finds the nearest producing water well is located 1.28 miles east of the subject well and is a spring-type water well producing from the Sparta Aquifer. Further, the static water level occurs from approximately seventy five feet to one-hundred thirty feet below ground surface in the area. The examiner opines the evidence submitted on behalf of Longbranch satisfies the requirements of Statewide Rule 9 and disposal fluids will be properly confined to the subject wellbore and the proposed injection interval.

The examiner concludes the nearest hydrocarbon producing well is located approximately two miles to the west of the subject well and is completed in a reservoir that occurs significantly deeper than the proposed injection interval. Further, based upon the completion information submitted to the Commission, along with the regional stratigraphic dip direction and slope Longbranch presented in its well log cross-section, the examiner finds the Gresham Trust Lease, Well No. 3 is protected with casing enveloped in cement at the sub-surface elevation at which the proposed Rodessa disposal zone occurs at the location of the Gresham Trust Lease, Well No. 3.

Approval of the application is in the public interest. The Bossier Shale formation development is expanding in the area surrounding the proposed disposal facility. The examiner believes Longbranch has demonstrated that the proposed disposal well is necessary in order to provide needed capacity for disposal of frac flow back and produced water from wells to be drilled and produced within surrounding counties. The proposed disposal well's location will be closer to recently permitted oil and gas exploratory wells than any existing commercial disposal well in Leon, Madison, and Houston Counties, Texas. Additionally, the examiner concludes approval of the proposed disposal well will reduce truck traffic miles resulting in reduced costs to operators, which will lower the economic limit of wells, and thereby ultimately increase total production.

Lastly, as presented at the hearing, the examiner finds the surface facility will be newly constructed and will be of sufficient size to accommodate trucks hauling water to the facility. Compliance with permit conditions will minimize the risk of spills at the facility and will prevent the migration of any spills that occur, thereby protecting both surface and ground water.

#### **FINDINGS OF FACT**

1. Notice of this application and hearing was provided to all persons entitled to notice. Notice of the subject application was published in the *Centerville News*, a newspaper of general circulation in Leon County, on April 06, 2011.
2. Notice of the application was sent to the Leon County Clerk and to the surface owners of each tract which adjoins the disposal tract on April 25, 2011 and September 21, 2011.
3. The proposed injection into the Oak Tree SWD Lease, Well No. 1, will not endanger useable quality water.
  - a. The TCEQ recommends that usable-quality ground water be protected to a depth of 3,100 feet below the ground surface.



- b. The Oak Tree SWD Lease, Well No. 1 will be drilled so that surface casing will be set from ground surface to 3,300 feet below ground surface with cement circulated behind pipe.
  - c. The well will have 7" production casing set from ground surface to 10,500 feet below ground surface, with cement circulated from the 7" casing shoe to 3,300 feet behind pipe.
  - d. There is 6,400 feet of overburden between the top of the proposed injection interval and the TCEQ's recommended groundwater protection depth.
- 4. The proposed injection into the Oak Tree SWD Lease, Well No. 1, will not endanger production from other oil, gas or mineral bearing formations.
  - a. The well will be equipped with 4 ½" tubing set on a packet at 9,450 feet, located fifty above the top of the proposed injection interval.
  - b. There are no wells located within the ½ mile radius of review for the proposed disposal well's location.
  - c. Longbranch proposes to use its Oak Tree SWD Lease, Well No. 1 to dispose of salt water and RCRA Exempt Waste into the Rodessa formation.
  - d. The closest well to the proposed Oak Tree SWD Lease, Well No. 1 is the EnCana, Gresham Trust Lease (Lease ID No. 260659), Well No. 3 (API No. 42-289-31851) and is located approximately 1.9 miles west of the proposed disposal well's location.
  - e. The Gresham Trust Lease (Lease ID No. 260659), Well No. 3 (API No. 42-289-31851) is producing from the Hayden Lake (Bossier) Field (Field ID No. 39775 500) through perforations occurring from 16,789 feet to 19,485 feet.
- 5. Use of the Oak Tree SWD Lease, Well No. 1, as a commercial disposal well is in the public interest because it will reduce hauling distances and will provide commercial disposal capacity for wells being drilled, completed and produced in the area surrounding the proposed disposal facility.
  - a. Currently, there are three commercial disposal wells in Leon County, four commercial disposal wells in Madison County, and one commercial disposal well in Houston County, Texas, permitted for oil and gas waste disposal.

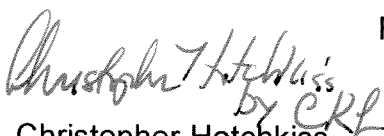
- b. Of the eight commercial disposal wells surrounding the Oak Tree SWD Lease, Well No. 1, three are located within a 15 mile radius of the Oak Tree SWD Lease, Well No. 1's permitted location.
  - c. Three of the eight surrounding commercial disposal wells are permitted to dispose into the Woodbine formation, four are permitted to dispose into the Buda/Wilcox Group formations, and one is permitted to dispose into the Nacotoch formation.
  - d. None of the eight existing commercial disposal facilities surrounding the Oak Tree SWD Lease, Well No. 1 are permitted to dispose into the Rodessa formation.
6. Longbranch has a current approved Form P-5 (Organization Report) and has posted a \$50,000 financial assurance bond.

#### **CONCLUSIONS OF LAW**


- 1. Proper notice was issued in accordance with the applicable statutory and regulatory requirements.
- 2. All things necessary to give the Railroad Commission jurisdiction to consider this matter have occurred.
- 3. Approval of the application will not harm useable quality water resources, will not endanger oil, gas, or geothermal resources, will promote further development in this area of Leon County, and is in the public interest, pursuant to Sec. 27.051 of the Texas Water Code.
- 4. Longbranch Energy, LP has met its burden of proof and its application satisfies the requirements of Chapter 27 of the Texas Water Code and the Railroad Commission's Statewide Rules 9 and 13.

#### **EXAMINERS' RECOMMENDATION**

Based on the above findings of fact and conclusions of law, the examiner recommends that the application of Longbranch Energy, LP for commercial disposal authority in its Oak Tree SWD Lease, Well No. 1, be approved, as set out in the attached Final Order.

  
Christopher Hotchkiss  
Legal Examiner

Respectfully submitted,

  
Brian K. Fancher  
Technical Examiner